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ABSTRACT

Reading management programs have become very popular in elementary schools. Students select a title from a prescribed reading list, then are tested for recall of facts and events in the story. Students are motivated to read as many titles as possible since they must achieve a certain score to win prizes. Although there have been reports that this increases voluntary independent reading, programs like Accelerated Reader[R] do little to increase comprehension or enhance reading instruction. Generative strategies use integration and organizational activities to increase both recall and comprehension of textual information. For this study, students were assigned two different book titles for independent reading. Using thinking maps, the students analyzed the information in the books then used these to generate test questions for a mock Accelerated Reader test. The results show marginal differences between pre and posttest scores, however there was a significant improvement when students tested each other with their own test items. In addition, students' test items were aligned with the Levels for Thinking model used by the North Carolina Department of Public Instruction for end-of-grade tests for higher level thinking. Half of the student-generated test items matched higher level thinking categories. Students were able to generate multiple choice test items, distractors, and correct answers at a high level of thinking. Three models were used to compare student-generated and criterion reference test items: Generative strategies (Wittrock), Thinking Maps (Hyerle), and Dimensions for Thinking (Marzano). (Contains 16 references.) (Author/AEF)

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Using Computers in the Classroom to Promote Generative Strategies for Reading Comprehension

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Abstract

Reading management programs have become very popular in elementary schools. Students select a title from a prescribed reading list then are tested for recall of facts and events in the story. Students are motivated to read as many titles as possible since they must achieve a certain score to win prizes. Although there have been reports that this increases voluntary independent reading, programs like Accelerated Reader® do little to increase comprehension or enhance reading instruction. Generative strategies use integration and organizational activities to increase both recall and comprehension of textual information. For this study, students were assigned two different book titles for independent reading. Using thinking maps, the students analyzed the information in the books, then used these to generate test questions for a mock Accelerated Reader test. The results show marginal differences between pre and posttest scores, however there was a significant improvement when students tested each other with their own test items. In addition, students' test items were aligned with the Levels for Thinking model used by the North Carolina Department of Public Instruction for end-of-grade tests for higher level thinking. Half of the student-generated test items matched higher level thinking categories. Students were able to generate multiple choice test items, distractors, and correct answers at a high level of thinking. Three models were used to compare student-generated and criterion reference test items: Generative strategies (Wittrock), Thinking Maps (Hyerle), and Dimensions for Thinking (Marzano).

Introduction

The Accelerated Reader®(AR) program is becoming increasingly popular in elementary, middle schools, and high school reading programs. Currently there are approximately 43,000 schools across the United States (Education Commission of the States, 1999) that use the AR software. Students choose from a list of titles that have been selected for their prescribed reading level then take quizzes to show mastery of content. Although these reading-management programs have contributed to an increase in voluntary reading, there are few reports (Mathis, 1996; Turner, 1993) suggesting that AR programs enhance comprehension or are useful as a tool for reading instruction. Most of the AR quizzes appear to measure recall of factual information only. Generative learning theory supports the use of cognitive strategies to promote improved comprehension in addition to recall of facts. There are a number of activities that could be considered generative. These include developing test questions, writing summaries from a passage of text, elaboration by developing a multimedia presentation, and analysis of content by generating charts and tables (Morrison, Ross, & Kemp, 2001).

Purpose of the Study

Voluntary independent reading may be increased through computerized reading-management programs, but the tests used by these programs are largely designed to measure recall of main ideas, characters, settings, and sequence of events in the story. If the reader does not gain a conceptual understanding of ideas and principles communicated in the books, tests similar to those administered through the reading-management programs, may not reveal deficiencies in comprehension. Research in generative learning theories have provided much evidence to support the use of generative strategies to increase comprehension of ideas and concepts, in addition to recall of facts. Comprehension of textual materials read during sustained voluntary reading sessions may be increased by combining two types of generative strategies.

First there are "organizational" strategies for the analysis and interpretation of textual information. Through the use of organizational charts, students analyze the ideas presented in a reading passage. Sentences, paragraphs, and chapters are distilled into basic ideas and concepts. The product of this analysis is displayed through visual tools such as bubble maps and flowcharts.

Second, there are "integration" strategies that use the integrative approach with student-generated test questions. Using their own thinking maps to interpret reading passages, students could generate test items consistent with higher level thinking processes similar to Dimensions in Thinking and those recommended by the North Carolina State Department of Public Instruction for end of grade tests. Students should be able to connect what they already know about a topic with the new ideas and concepts read in the text. Thus, three questions were generated to further investigate these strategies for teaching reading and writing comprehension; (1) can students generate test items consistent with higher level thinking processes similar to those recommended by NCDPI and Marzano's model for higher level thinking, (2) will the use of organizational strategies for generating original reading comprehension questions significantly affect student performance on a criterion referenced test for main idea, sequence of events, fact versus opinion, and cause/effect factors, and (3) will students perform better on a criterion referenced test than their own student-generated test for reading comprehension?

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Review of the Literature

Generative Learning Theory (GLT) first appeared in the literature in the early 1970's (Wittrock, 1974). Since then, reports on the effective use of generative strategies for improving recall and comprehension skills for reading (Dunlap, 1999; Volk & Ritchie, 1999; Wittrock & Alesandrini, 1990; Wittrock, 1991) have continued to be published. GLT is based on brain research which suggests that neural processes for learning are deeper and more lasting when connections are made between prior knowledge and new information. Wittrock (1992) defines generative learning as a process that leads learners to see relationships, (1) across concepts and (2) between prior learning and new information. Evidence that these connections are meaningful can be found students' writings of summaries, metaphors, paraphrases, and outlines. These strategies all fit in one category for generative learning known as integration strategies (Volk & Ritchie, 1999). In a second type of generative strategy, students may use tools for analysis of textual material for the purpose of seeing relationships between ideas, concepts, or events in a reading passage. A variety of tools can be used to accomplish this analytic type of processing. These include students' generated charts, tables, graphs, and concept maps and are known as organizational strategies.

Thinking Maps

The use of visual tools for organizing ideas and concepts found in textual information has been reported as useful for helping students translate what they have read into graphic images. These are in the form of thinking maps. Hyerle (2000) has organized these thinking maps into eight primitive formats, circle map, bubble map, double bubble-map, tree map, brace map, flow map, multi-flow map, and bridge map. Each of the primitives is unique in form and purpose. There are a number of benefits for using the maps. By organizing information into the appropriate map, students are able to increase memory of factual information, gain deeper conceptual understanding, communicate abstract concepts, and enhance creativity for perception-taking.

Dimensions for Thinking

North Carolina has built higher order thinking skills into classroom activities in all content areas for K-12 schools (Houghton, 1994). (*Thinking Skill Levels*.
Available: [http://www.ceap.wcu.edu/Houghton/Learner/Think94/homeNCthink94.html]). These activities were developed along with accountability measures adopted by the state in the form of End-Of-Grade Testing (North Carolina, 1992-1993).
Activities for the classroom were planned around thinking skills levels developed by Robert Marzano (1988, 1992). Marzano's model is a framework for higher level thinking applied to specific strategies for the classroom. It contains eight categories: focusing, information gathering, remembering, organizing, analyzing, generating, integrating, evaluating. NCDPI curriculum specialists reduced these eight categories to seven by collapsing the subcategories for focusing, information gathering, and remembering to one category, "knowledge". Table 1 shows how generative strategies, as defined by Morrison, et al., (2001), compare with Hyerle's Thinking Maps and the NCDPI's adaptation of Marzano's model, Dimensions for Thinking.

Table 1 Generative strategies, Thinking Maps, and Dimensions for Thinking are compared as generative learning models.

Morrison, et al. **Generative Strategies** (based on Wittrock)	David Hyerle **Thinking Maps**	NCDPI adapted from Marzano's **Dimensions for Thinking**	Strategies for Teaching
Recall	Context/frame of reference	Knowledge	>Using drill and practice software, repetitive games with feedback **>Circle map** for brainstorming, defining words List attributes or list the steps in a procedure
Organizational	Describing qualities Compare and contrast Classification Whole/part Sequencing	Organizing Analyzing	>Using productivity software to generate charts, graphs, or tables **>Tree map** for organizing topics >Organize notes from lecture **>Bubble maps** for organizing and identifying key components from information >Classifying groups of items into categories on the basis of attributes.
Elaboration	Cause and effect Analogies	Applying Evaluating	>Using different media forms to generate an expanded version of concept or idea >Using **flow maps** to sequence story parts, analyze and prioritize event and identify cause and effect relationships >Judging the value or logic of ideas

Integration	Whole/part Analogies Cause and effect	Generating Integrating	>Use word processor or webpage editor to generate summaries, outlines, and analogies **>Bridge maps** for comprehending analogies, similes, and metaphors >New information and prior knowledge are connected, combined and incorporated to generate a cohesive statement with new understanding.

Sample

The sample consisted of twenty 4th grade students from a suburban elementary school. There were 19 Caucasian children and 1 African American child. None of the students were eligible for free or reduced lunch programs, thus it was expected that students came from middle to high SES environments. None of the students had been administered the AR reading test for reading material used in the study, therefore few, if any, of the children had read the books used for the treatment.

Method and Materials

Students were assigned two titles, *The Velveteen Rabbit,* and *The Lion, the Witch, and the Wardrobe.* Each child had his or her own copies purchased with funding from a university/school partnership grant. Students were introduced to the researcher and told they would read the books, then as a special project, would create original Accelerated Reader® tests for other students in the school. They were also told that they should generate thinking maps related to the content of the books. Prior to this study, the students and the classroom teacher had all received instruction in the use of thinking maps for organizing and interpreting information, and were familiar with the eight types of thinking maps as described by Hyerle (2000)

The first treatment

After each child had read *The Velveteen Rabbit,* students were administered a reading comprehension test developed by the researcher and the classroom teacher. After the tests were scored, the teacher prompted students as they brainstormed and generated phrases and key terms for the thinking maps. Inspiration®, a flowcharting software designed for elementary through high school age students, was used to display the maps on a wall screen. Hard copies of the maps were printed and returned to the students. Students were then instructed to use their thinking maps as a guide for writing the questions that could be used for the AR reading tests. These activities were spread over several days. Students were also given skills instruction in how to use the Inspiration® software and how to develop tests using the authoring program, Hyperstudio®. Many of the students were familiar with both software packages and needed less skills training than had been anticipated by researcher. After the test items had been written, students were administered a posttest. Since the *Velveteen Rabbit* was below the recommended reading level for this 4th grade class, (AR suggests grades 1-3 for this title), difference between the pre and posttest was not significant. The purpose in the first treatment was to investigate possible technical problems and to determine the computer skill level of the students. The first treatment was actually a pilot test for treatment number 2.

The second treatment

Students were given an independent reading assignment for *The Lion, the Witch, and the Wardrobe.* Each child had his or her own copy of the book and was given the freedom to read the book independently at home, or in their school classroom. After a period of two weeks, all the children had completed the book and were given a pretest created by the researcher. Items for this test were categorized by (1) Main Idea, (2) Sequence of Events, (3) Fact vs. Opinion, and (4) Cause and Effect. Items were developed to measure higher levels of comprehension and were aligned with the North Carolina Department of Public Instruction's Model for Thinking Skill Levels (NCDPI,
Available online: [http://www.ceap.wcu.edu/Houghton/Learner/Think94/NCmarzanoThink.html]). The Thinking Skills Levels model is also used to develop End of Grade (EOG) tests that determine promotion or retention for grades 4 and 8. In addition to aligning test items with Thinking Skill Levels, the test was reviewed by the classroom teacher. The researcher was confident in her ability to evaluate the test as reliable for measuring reading comprehension. There were two reasons for this; first, she had worked as a trainer in the area of student assessment, and second, she was the designated coordinator for professional development in her building. Items have been aligned with higher level thinking processes according to Marzano's Model for Dimensions of Thinking in Appendix I.

After the pre test was completed and scored, students were assigned thinking maps to analyze the content of the book. Students used bubble maps and flowcharts to present the visual images for concepts related to book characters, factors for cause and effect, and sequence of events. The maps were generated in two formats; first, the researcher developed the maps using Inspiration® as the students dictated related concepts and ideas for the maps, and second as an independent activity using paper and pencil.

After maps were completed, students were given the assignment to "write the test questions" for the AR test program. This was an independent activity in which students wrote the questions at their desk using paper and pencil. They were told that this

would be their official "AR test" and could be used by others in the school to test their reading comprehension of *The Lion, the Witch, and the Wardrobe*. Students were also instructed to use information generated in the thinking maps to write their test questions. Each student wrote 5 to 7 test questions for the final "Accelerated Reader" test that would be generated using the Hyperstudio® software in the school's computer lab.

Following this, over a three-week period, students were divided into small groups and taken to the school computer lab. The researcher and the classroom teacher monitored students as they entered questions into the Hyperstudio "reading test". The test was a template prepared by the researcher and saved to disks for each student to use independently. Students were encouraged to enter as many questions as time permitted and to create elaborated versions of their test with reward buttons linked to "correct answers". Time limitations allowed only two visits to the computer lab, thus, the average number of test items completed by each student was four questions.

Following the computer lab sessions, a posttest was administered and scored by the researcher. The items in the posttest were identical to those in the pre test for measuring reading comprehension of (1) Main idea, (2) Sequence of Events, (3) Fact vs. Opinion, and (4) Cause and Effect.

Analysis of Data

The content of student questions (See Appendix II) was categorized by levels of thinking defined by NCDPI model for *Dimension for Thinking*, which is also used as a framework for test items written for EOG Tests. Each item was matched to one of the following: knowledge, organizing, analyzing, applying, evaluating, generating, or integrating. These categories represent thinking processes that would be required by the test taker as well as the test giver. It is assumed that students who generated the test item for a multiple choice test, must first write the test question, then be able to identify the correct answer as well as generate several distracter responses. Thus, students would engage in generative strategies for developing test questions, and at much higher levels than simple recall of facts.

The posttests were scored by number of correct responses. SPSS was used to calculate differences in means for pre and posttests. T test for paired samples was used to determine significant differences between the pretest and posttests generated by the researcher and posttests generated by students.

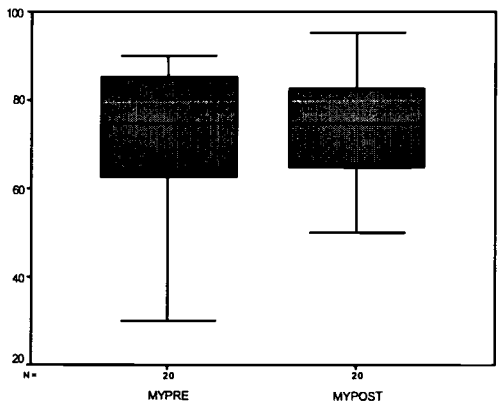
Results and Discussion

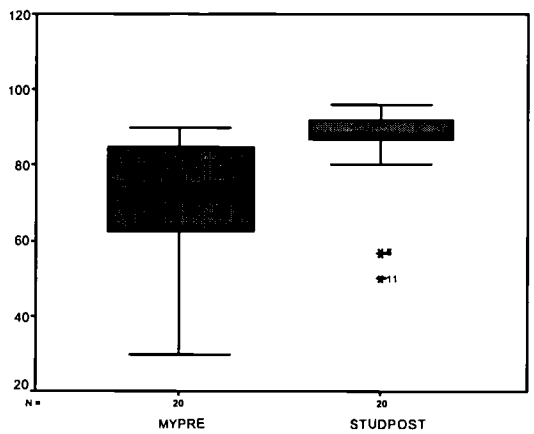
Test items developed by the researcher were aligned with the NCDPI recommendations for test development for higher levels of reading comprehension. As can be seen in Appendix II, most of the items could be categorized as organizational. Generative strategies for organization help students analyze information, see relationships, compare and contrast concepts, and restructure a large amount of information into appropriate categories. Compared to the researcher's posttest, student-generated items for the posttest contained more recall type questions but also included items for analysis, organization, application, evaluation, and integration.

Differences in pre and post test scores

There was some variation in the spread of the scores for the researcher's pre and posttest. There was very little variation in the scores for the student-generated posttest scores. As can be seen in the box charts in Figure 1, test scores on the student-generated test were tightly clustered around the mean value 85. Scores were more varied in the pre test ($m = 71.5$, $sd = 16.7$) than in the post test ($m = 84.7$, $sd = 13.5$)

Figure 1 Box charts showing spread of scores around the means for pretest and both posttests.





		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MYPRE	71.50	20	16.70	3.73
	MYPOST	75.75	20	11.634	2.60

		Mean	N	Std. Deviation	Std. Error Mean
Pair 2	MYPRE	71.50	20	16.70	3.73
	STUDPOST	84.75	20	13.580	3.03

Since pre and posttests were administered to the same sample of students, there should be a strong positive correlation between test scores on the pre test with the scores on the researcher's posttest as well as a strong positive correlation between the pre test and the student-generated posttest. The paired sample statistics (See Table 2) revealed a significant correlation ($p < .05$) between the pre test and post tests ($r = .76$, $df = 19$; $r = .77$, $df = 19$).

Table 2 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MYPRE& MYPOST	20	.761	.000
Pair 2	MYPRE& STUDPOST	20	.773	.000

As can be seen in Table 3, the t of 1.74 for differences in the researcher's pre and posttest was not significant at the .05 level, however, there was a significant difference in means between the pre test and the student-generated post test ($t = 5.57$, $df=19$, $p < .000$).

Table 3 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MYPRE - MYPOST	-4.25	10.88	2.43	-9.34	.844	-1.74	19	.097
Pair 2	MYPRE - STUDPOST	-13.25	10.62	2.37	-18.22	-8.27	**-5.57***	19	.000

Conclusions

Close to half the student-generated test items were written to measure recall of basic facts. These test items would be aligned with the students' thinking processes for recall of who, what, when, and where did this happen in the story, however, over half the students' tests questions were written at a higher level than simple recall of facts. Since students developed the items independently, this study provides strong evidence to suggest that elementary children are able to use thinking maps or other visual tools with generative writing strategies for deeper processing of textual information. From their own analyses, students were able to generate test questions that could be used to measure the higher level thinking processes of their peers. In addition, students were able to evaluate the accuracy of correct responses and determine the suitability of distracters for a reading comprehension test. It cannot be determined from this study, the full effect of the thinking maps as visual tools for interpreting and analyzing textual information. Further study is planned to investigate differences in the quality of generated test items with and without the use of the thinking maps. In addition, there should be an investigation of the effect of computerized software for generating maps when compared to simple maps produced by paper and pencil. Volk and Ritchie (1999) found significant effects from the interaction of groups with the use of generative strategies using manipulatives. Students for this study worked in a whole group session facilitated by the teacher and the researcher to generate thinking maps. Their questions, however, were generated independently using the completed thinking maps as a blueprint to construct the items. Further study in students' use of generative strategies to write test questions, with or without electronic thinking maps, may reveal similar interaction effects on their performance on the posttest.

The bubble format was the thinking map of choice for the students. Hyerle (2000) defines the bubble map as an analytic tool. This type of thinking and mental processing should help the student to develop a deeper conceptual understanding of a reading passage. For example, students used the bubble map to analyze the personalities of all the characters in *The Lion, the Witch, and the Wardrobe.* Each character's personal traits were defined, discussed, and then identified as villain, hero, good, evil, protagonist, etc. For some of the maps, students developed a flowchart to analyze the sequence of events. During the whole class sessions, students carefully analyzed the order of events for the story. From this kind of mental processing, it would be expected that students would write more test items for organizing and analyzing ideas. It is surprising, then, to discover that the students' test items were in the categories for *applying, evaluating* and *integrating* ideas. For example, one student wrote, "9. Why did Mr. Tumnus get made into stone?". Since the story did not clearly explain the full reason, the reader would need to make certain assumptions based on the character's actions in relation to the villain's personality traits. In addition, the reader would need to evaluate certain moral justifications that were not explicitly stated in the story. This would, more likely, require thinking processes for integration of new information with prior experiences and synthesis of ideas than organization and sequence of events.

Writing test questions with accurate answers and appropriate distracters would also help students evaluate the concepts and events in the story. Since the test items were generated independently, it may have resulted in students' greater use of generative strategies for integration of new ideas with prior knowledge and across the various ideas rather than organization of events. Integration strategies increase students' ability to see relationships and connections between ideas and concepts. This type of mental processing would certainly result in students' ability to develop questions for application of concepts and synthesis of themes and ideas across the entire book. In answer to the first question in this study, a qualitative evaluation of students' test questions would suggest elementary age children can generate test items consistent with higher level thinking processes.

A paired sample t test was used to measure the differences in means between the pretest and posttest developed by the researcher. It was hoped that the use of the generative strategies would have a more significant effect on students' test scores, however, differences were marginal at the .05 level ($t = 1.74$, $df = 19$, $p < .09$). In retrospect, I would set the significance level at .10 for two reasons. First, this study was not in a controlled laboratory setting nor were students tested for reading ability and cognitive capacity prior to the treatment. Similar to the study by Volk and Ritchie (1999), this was a pilot study with many variables that might interfere with the results of students' performance. Second, scores from matched pairs are less likely to

reveal differences based on the effect of the treatment. According to Popham and Sirotnik (1992), with corresponding scores, there is a tendency, that differences in means are less likely to be significantly different.

There was a significant difference between the means from the pre test and means from the student-generated post test ($t = 5.57$, $df = 19$, $p < .000$). Using paper and pencil, each student had written 4 to 5 items, and then entered these into the Hyperstudio® stack for the mock AR test. From this pool of test questions, 20 items were selected. These were copied and pasted into a word-processed document and administered to the students as a paper and pencil test. Conditions for the student-generated posttest were identical to those of the researcher's posttest. T test statistics for paired samples showed a significant correlation between the data from the pre test and the data from the posttests. Students who performed poorly on the pre test, performed at a corresponding level on both posttests, thus it is likely that the student-generated posttest was reliable. In answer to question 2, this would suggest that the use of organizational strategies for generating original reading comprehension questions does have a positive effect for student performance. Further, the effect of the treatment appears to improve scores for a criterion referenced test for main idea, sequence of events, fact versus opinion, and cause/effect factors. There should be further study to provide evidence to support the effectiveness for the use of generative test questions. This could be accomplished by measuring gains in scores for this sample with a comparable group who did not receive the treatment. The answer to question 3 is answered by comparing the means between both posttests. Descriptive statistics show that students did perform better when answering their peers' questions than the items from the researcher's test (see Table 3). At first, this may appear of little interest, but with the qualitative evaluation of students' test items for higher thinking processes, their performance on this test may reveal some positive effects from the treatment.

Students were also highly motivated to develop a test that would be taken by their peers. This was an authentic problem in which students were challenged to write a mock test for Accelerated Reader. Since research has shown that students are motivated to solve a real-world problem, I was able to observe students as they exhibited an effort to construct questions which they judged as fair and would be important for measuring reading comprehension. Because of the earlier experiences with AR testing, students were familiar with the multiple-choice format. Based on this experience, they were also able to make some judgments in what kinds of questions measure reading ability.

The pool of questions written by the students was characteristic of high level of thinking processes for seeing relationships among ideas presented in the story. Students also demonstrated a high level of evaluative skill for constructing test questions that are suitable for measuring reading comprehension. Although student performance showed marginal performance on the criterion-referenced posttest, students showed significant improvement when answering test questions developed by their peers. This study clearly provides support for the use of generative strategies for higher level thinking when reading and interpreting textual information.

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Appendix I	Pretest developed using framework from Dimensions for Thinking. Available online: [http://www.ceap.wcu.edu/Houghton/Learner/Think94/NCmarzanoThink.html]
NCDPI adapted from Marzano's Dimensions for Thinking	**Pre and Post Test Questions** Generated by Researcher
Knowledge Declarative and procedural knowledge	**Recall** 11. Who did Lucy meet first? 13. What do the children do after Aslan comes back to life?
Organizing Comparing, classifying, and ordering sequences Analyzing Identifying attributes and components; Identifying relationships and patterns	**Sequence** 9. What happened first? a. Peter discovered..... b. Lucy found.... c. Edmund found... d. Edmund and Lucy found.... 10. Aslan was victorious .... a. after Edmund... b. after Aslan was... c. after Peter was.... d. after all the animals.... 12. Who were the last two people to see Aslan alive? **Cause and Effect** 14. Edmund loved the idea of becoming a Prince because..... 15. The Professor told Susan and Peter that Lucy might be telling the truth because.... 16. The Battle between Aslan and the Witch would have been lost except..... 8. Lucy was very worried about Mr. Tumnus because..... **Main Idea** 1. Which of the following best describes Aslan? 2. Which of the following best describes the Witch? 3. Which of the following best describes Edmond?
Applying Demonstration of prior knowledge within a new situation Evaluating Confirming or proving the truth of an idea,	**Main Idea** 4. At the beginning of the story, Edmund pretended that he had not really found Narnia and was making the story up because...? 7. After Edmund had been rescued by Aslan he felt..... **Fact versus Opinion** 17. The Witch was wicked and lonely 18. Aslan was good and brave 19. In the end, Edmund was a hero 20. Turkish Delight is delicious
Generating Inferring, Predicting & Elaborating Integrating Summarizing and restructuring; identifying important components to generate a cohesive thought.	**Main Idea** 5. Why did Edmund have to die at the hand of the Witch? 6. Why did Aslan die? 7. After Edmund had been rescued by Aslan he felt.....

Appendix II	Comparison of researcher-test with student-test for match with higher levels of thinking.	Note: certain test items may match more than one category.		
NCDPI adapted from Marzano's Dimensions for Thinking	**Post Test Questions Generated by 4th Grade Students**	**Dimensions for Thinking category**	**Number of items from researcher's test that match category (see Table 2)**	**Number of items from students' test that match category**
Knowledge	1. How did Lucy discover Narnia? 2. Who was Aslan? 5. The White Witch told Edmund he would become a _____when she was gone.... 10. What did Father Christmas give Peter? 16. What game were the kids playing when they found the wardrobe? 18. Where did the Professor live? 19. What food did Mr. Tumnus NOT give Lucy in his home? 21. How many reindeer did the White Witch have on her sled?	Knowledge	2	8
Organizing Analyzing	3. When Lucy and Susan followed Aslan, they followed him to..... 6. The first kid who knew about Narnia was.... a. the youngest in the family b. the last to know about Narnia c. the meanest kid in the family d. the oldest kid in the family 8. When Lucy went to Narnia, who did she first meet? 15. Did Edmund get to eat his favorite food when he got to the Witch's house?	Organizing Analyzing	19	4
Applying Evaluating	7. Why did Aslan die? 9. Why did Mr. Tumnus get made into stone? 11. Why did Mr. Tumnus ask Lucy if she was a daughter of Eve? 12. Why does Edmund leave the Beaver's house? 13. What does Edmund want from the White Witch? 26. Why did the Beavers say, "Be quiet!"?	Applying Evaluating	6	6
• Generating • Integrating	14. Why didn't Edmund tell the others he had found Narnia just like Lucy did? 17. How was Aslan brought back to life?	Generating Integrating	3	2

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